

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new Traffic Control Signal with street lighting at the intersection of MD 60 (Leitersburg Pike) and Meadow View Drive / Cortland Drive in Washington County. Video detection shall be used for all approaches. MD 60 (Leitersburg Pike) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

- Initially, the intersection shall operate as an Intersection Control Beacon with the MD 60 (Leitersburg Pike) approaches operating in a flashing yellow mode with the side street approaches operating in a flashing red mode.
- When warranted, the intersection is to operate in a NEMA six-phase, fully-actuated mode, with the MD 60 (Leitersburg Pike) approaches running concurrently. Exclusive/Permissive left turn phases shall be provided for both approaches of MD 60 (Leitersburg Pike). A pedestrian phase with pushbutton actuation shall be provided across the north leg of MD 60 (Leitersburg Pike). The Meadow View Drive / Cortland Drive approaches shall also run concurrently.
- A full-traffic-actuated, eight-phase controller with one (1) four channel, rack mount loop detector amplifier, video interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. NUMBER	DESCRIPTION	QUANTITY
814	12", one-way, three-section (R,Y,G) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.	6 EA
814	12", one-way, five-section (R,Y,YA,G,GA) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.	2 EA
814	12"/8", one-way, five-section (8"-YA,GA,R,Y,G) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.	2 EA
814	12", one-way, two-section (DW,W) symbolic pedestrian signal head with adjustable bracket for pole mounting and outaway visors. (Countdown Display)	1 EA
814	12", two-way, two-section (DW,W) symbolic pedestrian signal head with adjustable bracket for pole mounting and outaway visors. (Countdown Display)	1 EA
814	12", one-way, two-section (DW,W) symbolic pedestrian signal head having proper post top adapter for pedestal mounting outaway visors. (Countdown Display)	1 EA
	Eight-phase, full-traffic actuated, solid state digital controller with one 4-channel, rack mount loop detector amplifier & power supply housed in a NEMA size "6" mounted cabinet	1 EA
205	Test pit excavation.	5 C.Y.
801	Furnish and install concrete for signal foundation.	14 C.Y.
813	Overhead mast arm mounted sheet aluminum sign consisting of:	106 S.F.
	D3-2 "(arrow) Meadow View Dr / Cortland Dr (arrow)" sign, (variable x 16") mast arm.	1 EA
	D3-2 "(arrow) Cortland Dr (arrow) / Meadow View Dr (arrow)" sign, (variable x 16") mast arm.	1 EA
	D3-2 "Leitersburg Pike" sign, (variable x 16") mast arm.	2 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm.	2 EA
	R10-12 "LEFT TURN YIELD ON GREEN (BALL)" sign, (36" x 42") mast arm.	2 EA
	GUIDE SHIELD ASSEMBLY (36"x75") pole mounted.	1 EA
	M3-3 "SOUTH"(30"x15")	
	M1-5 "MD 60"(36"x36")	
	M6-1 "left arrow"(30"x24")	
	GUIDE SHIELD ASSEMBLY (24"x51") pole mounted.	1 EA
	M3-1 "NORTH"(24"x12")	
	M1-5 "MD 60"(24"x24")	
	M6-1 "right arrow"(21"x15")	

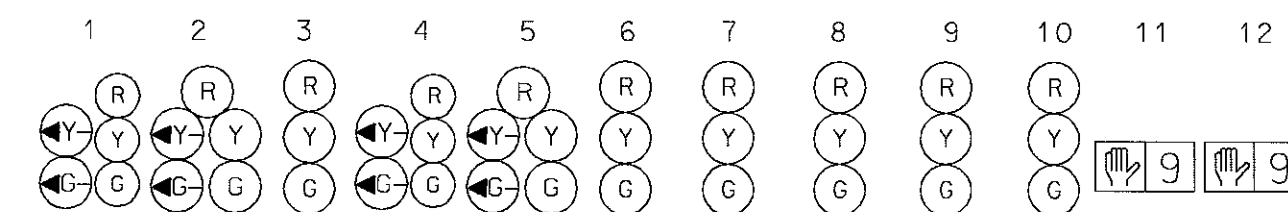
EQUIPMENT LIST (CONT)

A. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. NUMBER	DESCRIPTION	QUANTITY
556	12" white heat applied permanent preformed thermoplastic pavement marking	430 L.F.
556	24" white heat applied permanent preformed thermoplastic pavement marking	55 L.F.
	Depressed curb and gutter.	20 L.F.
	Remove curb and gutter.	20 L.F.
815	Saw cut for signal	60 L.F.
805	1" galvanized steel electrical conduit (detector wire sleeve)	25 L.F.
805	1" liquid tight flexible non-metallic conduit for detector sleeve.	15 L.F.
805	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trench	80 L.F.
805	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trench	730 L.F.
805	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trench	60 L.F.
811	Furnish and install electrical handhole.	10 EA
810	Furnish and install 3-conductor electrical cable (No. 14 A.W.G.).	275 L.F.
810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.).	205 L.F.
810	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).	280 L.F.
810	Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).	1350 L.F.
810	Furnish and install ground rod - 1/2" x 10'.	5 EA
810	Furnish and install No. 6 AWG stranded bare copper ground wire.	595 L.F.
810	Furnish and install tray cable - 2 conductor (No. 12 AWG)	205 L.F.
806	Furnish and install 250 watt HPS Luminaire with photocell.	1 EA
808	Furnish and install 20' lighting bracket arm for traffic signal structure.	1 EA
817	Pedestrian pushbutton and R10-4(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS LEITERSBURG PK".)	2 EA
817	Pedestrian education R10-4(1) sign. (Note: top portion blank).	1 EA
807	Furnish and install control and distribution equipment (120/240 V, 1 phase 3 wire system).	1 EA
	Furnish and install 4' breakaway pedestal pole with transformer base.	1 EA
	Furnish and install 10' breakaway pedestal pole with transformer base.	1 EA
	Furnish and install 27' (cut to 21') steel pole and 50' mast arm.	2 EA
	Furnish and install 27' steel pole and 50' mast arm.	1 EA
	Furnish and install 27' steel pole and 60' mast arm.	1 EA
	Cut, clean and cap mast arm / steel pole.	2 EA
	Furnish and install micro-loop with 500' lead-in.	1 EA
	Furnish and install micro-loop with 1000' lead-in.	1 EA
	Furnish and install Traficon Video detector camera.	4 EA
	Pre-manufactured camera to controller cable (200')	2 EA
	Pre-manufactured camera to controller cable (300')	2 EA
	4" Concrete sidewalk for handicapped ramp	55 SF
	Video interface.	1 EA
	Remove existing ground mounted sign.	2 EA
	Remove existing manhole.	6 EA

FOR FUTURE USE

PHASE CHART



The contact persons for District #6 are as follows:

Mr. George Small
Assistant District Engineer - Traffic
Phone: (301) 729-8444

Mr. George C. Frankenburg
Assistant District Engineer - Maintenance
Phone: (301) 729-8457

Mr. Larry Humberston
Assistant District Engineer - Utility
Phone: (301) 729-8439

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

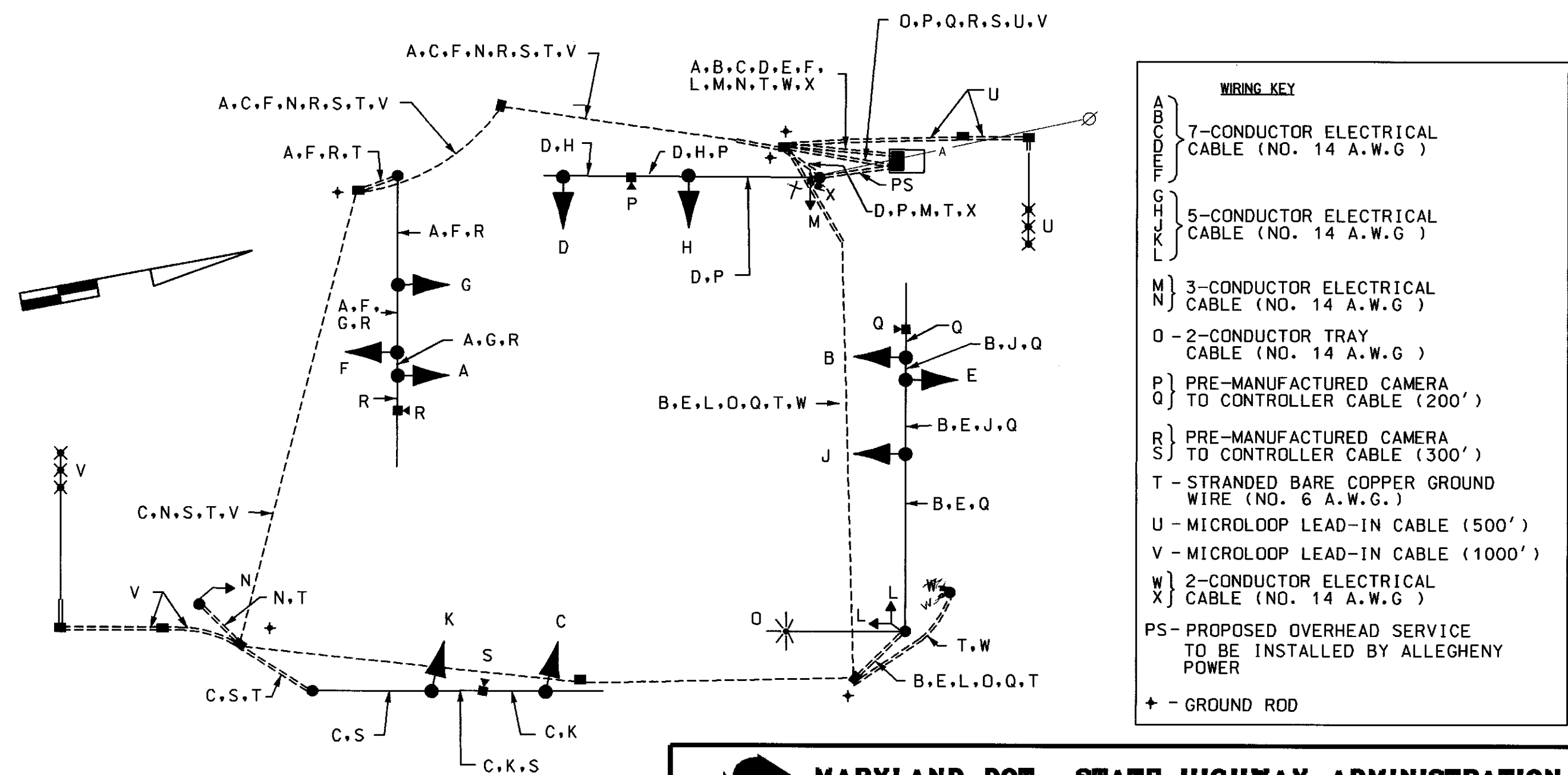
The power company representative is:

Mr. Bruce Wibberley
Allegheny Power
421 East Patrick Street
P.O. Box 488
Frederick, MD 21705
301-694-4485

PHASE 1 & 5	←G-/R	←G-/R	R	←G-/R	←G-/R	R	R	R	R	R	DW	DW	↑
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6													↑
PHASE 1 & 6	←G-/G	←G-/G	G	R	R	R	R	R	R	R	DW	DW	↑
1 & 6 CHANGE	←Y-/G	←Y-/G	G	R	R	R	R	R	R	R	DW	DW	↑
PHASE 2 & 5	R	R	R	←G-/G	←G-/G	G	R	R	R	R	DW	DW	↑
2 & 5 CHANGE	R	R	R	←Y-/G	←Y-/G	G	R	R	R	R	DW	DW	↑
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	DW	DW	↑
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW	DW	↑
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	DW	DW	↑
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	↑
PHASE 4 & 8 ALT	R	R	R	R	R	R	G	G	G	G	WK	WK	↑
PED CLEAR	R	R	R	R	R	R	G	G	G	G	FL/DW	FL/DW	↑
4 & 8 CHANGE ALT	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	↑
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	↑

* Approved as noted 9/21/04
- Add ped movement for East leg to future phase chart

WIRING DIAGRAM



WIRING KEY	
[7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	
[5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	
[3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	
[2-CONDUCTOR TRAY CABLE (NO. 14 A.W.G.)	
[PRE-MANUFACTURED CAMERA TO CONTROLLER CABLE (200')	
[PRE-MANUFACTURED CAMERA TO CONTROLLER CABLE (300')	
[STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)	
[MICROLOOP LEAD-IN CABLE (500')	
[MICROLOOP LEAD-IN CABLE (1000')	
[2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	
[PROPOSED OVERHEAD SERVICE TO BE INSTALLED BY ALLEGHENY POWER	
[GROUND ROD	

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 60 (LEITERSBURG PIKE) AND MEADOW VIEW DR / CORTLAND DRIVE

DRAWN BY: ROB CICCHINI	F.A.P. NO. 4345-G1	TS NO. 4345-G1	SHEET NO. 2 OF 2
CHECKED BY: R ZACHERL	S.H.A. NO. WASHINGTON	T.I.M.S. NO. 6644	
SCALE: NONE	COUNTY: WASHINGTON	LOG. MILE: 21006000.37	
DATE: 9-20-04	LOG. MILE: 21006000.37		

